

Navajo-Gallup Water Supply Project

**APPENDIX E
UPPER BASIN DEPLETION SCHEDULES**

Navajo-Gallup M&I Demands for Year 2060

17-Jan-01

Service Area	Chapter	Point of Use [1]	1990 Census Pop.	2060 Pop. [2]	2060 SJR Demand [3] (Ac-ft/yr)	2060 G.W. Production [4] (Ac-ft/yr)	2060 SJR Diversion [5] (Ac-ft/yr)	2060 SJR Depletion [6] (Ac-ft/yr)
City of Gallup, NM	City of Gallup [7]	L.C.	19,154	67,698	12,134	6,951	7,500	7,500
Central Area, NM	Burnham	U.C.	246	1,367	245	0	245	245
	Lake Valley	U.C.	436	2,422	434	46	388	388
	White Rock	U.C.	201	1,117	200	see Lk Vly	200	200
	White Horse Lake	U.C.	610	3,389	607	31	577	577
	SUBTOTAL		1,493	8,295	1,487	77	1,410	1,410
Crowpoint, NM	Becenti	U.C.	193	1,072	192	see Crwn Pt	192	192
	Coyote Canyon	U.C.	1,234	6,856	1,229	61	1,167	1,167
	Crowpoint	U.C.	2,658	14,767	2,647	614	2,033	2,033
	Dalton Pass	U.C.	313	1,739	312	0	311	311
	Little Water	U.C.	638	3,545	635	see Crwn Pt	635	635
	Standing Rock	U.C.	251	1,394	250	77	173	173
SUBTOTAL		5,287	29,373	5,265	752	4,512	4,512	
Gallup Area, NM	Bread Springs	L.C.	1,219	6,772	1,214	77	1,137	1,137
	Chichiltah	L.C.	1,555	8,639	1,548	see Brd spr.	1,548	1,548
	Church Rock	L.C.	1,780	9,889	1,772	123	1,650	1,650
	Iyanbito	L.C.	974	5,411	970	153	816	816
	Mariano Lake	L.C.	726	4,033	723	92	631	631
	Pinedale	L.C.	609	3,383	606	see Mmo Lk	606	606
	Red Rock	L.C.	1,041	5,783	1,037	61	975	975
SUBTOTAL		7,904	43,912	7,871	506	7,364	7,364	
Huerfano, NM	Huerfano	U.C.	511	2,839	509	31	478	478
	Nageezi	U.C.	981	5,450	977	15	962	962
SUBTOTAL		1,492	8,289	1,486	46	1,440	1,440	
Rock Springs, NM	Manuelito	L.C.	631	3,506	628	46	582	582
	Rock Springs	L.C.	1,685	9,361	1,678	77	1,601	1,601
	Tsayatoh	L.C.	1,433	7,961	1,427	46	1,381	1,381
SUBTOTAL		3,749	20,828	3,733	169	3,564	3,564	
Route 666, NM	Mexican Springs	U.C.	711	3,950	708	see Tohatchi	708	708
	Naschitti	U.C.	1,539	8,550	1,532	77	1,456	1,456
	Newcomb	U.C.	651	3,617	648	12	636	636
	Sanostee	U.C.	2,081	11,561	2,072	153	1,919	1,919
	Sheep Springs	U.C.	660	3,667	657	15	642	642
	Tohatchi	U.C.	1,607	8,928	1,600	307	1,293	1,293
	Twin Lakes	U.C.	1,967	10,928	1,959	153	1,805	1,805
	Two Grey Hills	U.C.	883	4,906	879	77	803	803
SUBTOTAL		10,099	56,107	10,056	795	9,261	9,261	
Torreon, NM	Counselor	U.C.	1,365	7,584	1,359	0	1,359	1,359
	Ojo Encino [8]	R.G.	596	3,311	593	15	578	578
	Pueblo Pintado	U.C.	472	2,622	470	0	470	470
	Torreon [8]	R.G.	1,364	7,578	1,358	61	1,297	1,297
SUBTOTAL		3,797	21,095	3,781	77	3,704	3,704	
San Juan River, NM	Beclaibito	U.C.	388	2,156	386	0	386	193
	Cudei	U.C.	495	2,750	493	0	493	246
	Hogback	U.C.	740	4,111	737	0	737	368
	Nenahnezad	U.C.	1,253	6,961	1,248	0	1,248	624
	San Juan	U.C.	540	3,000	538	0	538	269
	Shiprock	U.C.	8,100	45,001	8,066	0	8,066	4,033
	Upper Fruitland	U.C.	2,288	12,711	2,278	0	2,278	1,139
SUBTOTAL [9]		13,804	76,691	13,746	4,680	9,066	4,533	
NAPI Industrial, NM [10]		U.C.	n/a	n/a	7,274	700	700	700
NEW MEXICO UPPER BASIN		U.C.	35,972	199,849	43,094	7,127	30,093	25,561
NEW MEXICO LOWER BASIN		L.C.	30,807	132,439	23,738	7,626	18,429	18,429
TOTAL NEW MEXICO			66,779	332,288	66,832	14,753	48,522	43,989
Window Rock, AZ	Fort Defiance	L.C.	6,187	34,373	6,161	767	5,394	5,394
	Saint Michaels	L.C.	5,580	31,001	5,556	see Ft. Dfnc.	5,556	5,556
TOTAL ARIZONA [11]		L.C.	11,767	65,374	11,717	767	10,950	10,950
PROJECT TOTAL			78,546	397,662	78,549	15,520	59,472	54,939

Notes: Rounding error may cause subtotals to be off by 1

1 U.C.=Upper Colorado Basin, L.C.=Lower Colorado Basin, R.G.=Rio Grande Basin

2 Growth for the City of Gallup is 1.82%. Growth for Navajo Nation is ---- 2.48%

3 Demand is 160 gal/capita/day

4 Estimated sustainable groundwater production

5 Diversions = demand - groundwater use. Gallup limited to 7,500 ac-ft/yr

6 Depletions assume zero return flow and use of sustainable groundwater

7 City of Gallup plans to recharge aquifer and use groundwater for summer daily peaking

8 Point of use in Rio Grande Basin. Depletions counted towards New Mexico U.C. allocation

9 4680 Ac-ft/yr of diversion provided from the ALP Project. Assumes a 50% return flow

10 Div. and depl. limited to 700 Ac-ft/yr including 400 Ac-ft/yr for proposed french fry factory

11 Depletions counted towards Arizona L.C. allocation

Navajo-Gallup M&I Demands for Year 2000

17-Jan-01

Service Area	Chapter	Point of Use [1]	1990 Census Pop.	2000 Pop. [2]	2000 SJR Demand [3] (Ac-ft/yr)	2000 G.W. Production [4] (Ac-ft/yr)	2000 SJR Diversion [5] (Ac-ft/yr)	2000 SJR Depletion [6] (Ac-ft/yr)
City of Gallup, NM	City of Gallup [7]	L.C.	19,154	22,940	4,112	4,335	0	0
Central Area, NM	Bumham	U.C.	246	314	56	0	56	56
	Lake Valley	U.C.	436	557	100	22	78	78
	White Rock	U.C.	201	257	46	see Lk Vly	46	46
	White Horse Lake	U.C.	610	779	140	5	135	135
	SUBTOTAL		1,493	1,907	342	27	315	315
Crownpoint, NM	Becenti	U.C.	193	247	44	see Crwn Pt.	44	44
	Coyote Canyon	U.C.	1,234	1,577	283	32	250	250
	Crownpoint	U.C.	2,658	3,396	609	263	346	346
	Dalton Pass	U.C.	313	400	72	0	71	71
	Little Water	U.C.	638	815	146	see Crwn Pt.	146	146
	Standing Rock	U.C.	251	321	57	34	23	23
	SUBTOTAL		5,287	6,755	1,211	330	881	881
Gallup Area, NM	Bread Springs	L.C.	1,219	1,557	279	43	236	236
	Chichittah	L.C.	1,555	1,987	356	unknown	356	356
	Church Rock	L.C.	1,780	2,274	408	58	350	350
	Iyanbito	L.C.	974	1,244	223	unknown	223	223
	Mariano Lake	L.C.	726	928	166	122	44	44
	Pinedale	L.C.	609	778	139	see Mmo Lk	139	139
	Red Rock	L.C.	1,041	1,330	238	35	203	203
	SUBTOTAL		7,904	10,098	1,810	258	1,552	1,552
Huerfano, NM	Huerfano	U.C.	511	653	117	59	58	58
	Nageezi	U.C.	981	1,253	225	31	194	194
		SUBTOTAL	1,492	1,906	342	90	251	251
Rock Springs, NM	Manuelito	L.C.	631	806	144	unknown	144	144
	Rock Springs	L.C.	1,685	2,153	386	40	346	346
	Tsayatoh	L.C.	1,433	1,831	328	18	310	310
		SUBTOTAL	3,749	4,790	858	58	801	801
Route 666, NM	Mexican Springs	U.C.	711	908	163	42	121	121
	Naschitti	U.C.	1,539	1,966	352	82	270	270
	Newcomb	U.C.	651	832	149	13	136	136
	Sanostee	U.C.	2,081	2,659	477	89	388	388
	Sheep Springs	U.C.	660	843	151	12	139	139
	Tohatchi	U.C.	1,607	2,053	368	137	231	231
	Twin Lakes	U.C.	1,967	2,513	450	87	363	363
	Two Gray Hills	U.C.	883	1,128	202	55	147	147
	SUBTOTAL	10,099	12,902	2,313	518	1,794	1,794	
Torreon, NM	Counselor	U.C.	1,365	1,744	313	0	313	313
	Ojo Encino [8]	R.G.	596	761	136	21	115	115
	Pueblo Pintado	U.C.	472	603	108	0	108	108
	Torreon [8]	R.G.	1,364	1,743	312	92	221	221
		SUBTOTAL	3,797	4,851	869	113	757	757
San Juan River, NM	Beclaibito	U.C.	388	496	89	0	89	44
	Cudei	U.C.	495	632	113	0	113	57
	Hogback	U.C.	740	945	169	0	169	85
	Nenahnezad	U.C.	1,253	1,601	287	0	287	143
	San Juan	U.C.	540	690	124	0	124	62
	Shiprock	U.C.	8,100	10,348	1,855	0	1,855	927
	Upper Fruitland	U.C.	2,288	2,923	524	0	524	262
	SUBTOTAL [9]	13,804	17,636	3,161	0	3,161	1,580	
NAPI Industrial, NM [10]		U.C.	n/a	n/a	7,274	0	0	0
NEW MEXICO UPPER BASIN & R.G.		U.C.	35,972	45,957	15,511	1,078	7,159	5,578
NEW MEXICO LOWER BASIN		L.C.	30,807	37,828	6,780	4,651	2,352	2,352
TOTAL NEW MEXICO			66,779	83,785	22,291	5,730	9,511	7,931
Window Rock, AZ	Fort Defiance	L.C.	6,187	7,904	1,417	1,043	374	374
	Saint Michaels	L.C.	5,580	7,129	1,278	see Ft. Dfnc.	1,278	1,278
TOTAL ARIZONA [11]		L.C.	11,767	15,033	2,695	1,043	1,652	1,652
PROJECT TOTAL			78,546	98,818	24,986	6,772	11,163	9,583

Notes: Rounding error may cause subtotals to be off by 1

1 U.C.=Upper Colorado Basin, L.C.=Lower Colorado Basin, R.G.=Rio Grande Basin

2 Growth for the City of Gallup is 1.82%. Growth for Navajo Nation is ---- 2.48%

3 Demand is 160 gal/capita/day

4 Estimated sustainable groundwater production

5 Diversions = demand - groundwater use. Gallup limited to 7,500 ac-ft/yr

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8 Point of use in Rio Grande Basin. Depletions counted towards New Mexico U.C. allocation

9 4680 Ac-ft/yr of diversion provided from the ALP Project. Assumes a 50% return flow

10 Div. and depl. limited to 700 Ac-ft/yr including 400 Ac-ft/yr for proposed french fry factory

11 Depletions counted towards Arizona L.C. allocation

Navajo-Gallup M&I Demands for Year 2010

17-Jan-01

Service Area	Chapter	Point of Use [1]	1990 Census Pop.	2010 Pop. [2]	2010 SJR Demand [3] (Ac-ft/yr)	2010 G.W. Production [4] (Ac-ft/yr)	2010 SJR Diversion [5] (Ac-ft/yr)	2010 SJR Depletion [6] (Ac-ft/yr)
City of Gallup, NM	City of Gallup [7]	L.C.	19,154	27,474	4,924	0	7,500	7,500
Central Area, NM	Burnham	U.C.	246	402	72	0	72	72
	Lake Valley	U.C.	436	712	128	28	99	99
	White Rock	U.C.	201	328	59	see Lk Vly	59	59
	White Horse Lake	U.C.	610	996	178	12	167	167
	SUBTOTAL		1,493	2,437	437	40	397	397
Crownpoint, NM	Becenti	U.C.	193	315	56	see Crwn Pt.	56	56
	Coyote Canyon	U.C.	1,234	2,014	361	40	321	321
	Crownpoint	U.C.	2,658	4,338	778	351	427	427
	Dalton Pass	U.C.	313	511	92	0	91	91
	Little Water	U.C.	638	1,041	187	see Crwn Pt.	187	187
	Standing Rock	U.C.	251	410	73	45	29	29
SUBTOTAL		5,287	8,630	1,547	435	1,111	1,111	
Gallup Area, NM	Bread Springs	L.C.	1,219	1,990	357	51	305	305
	Chichiltah	L.C.	1,555	2,538	455	see Brd spr.	455	455
	Church Rock	L.C.	1,780	2,905	521	74	447	447
	Iyanbito	L.C.	974	1,590	285	38	247	247
	Mariano Lake	L.C.	726	1,185	212	115	98	98
	Pinedale	L.C.	609	994	178	see Mmo Lk	178	178
	Red Rock	L.C.	1,041	1,699	305	42	263	263
SUBTOTAL		7,904	12,901	2,312	320	1,992	1,992	
Huerfano, NM	Huerfano	U.C.	511	834	149	52	97	97
	Nageezi	U.C.	981	1,601	287	27	260	260
SUBTOTAL		1,492	2,435	436	79	357	357	
Rock Springs, NM	Manuelito	L.C.	631	1,030	185	12	173	173
	Rock Springs	L.C.	1,685	2,750	493	49	444	444
	Tsayatoh	L.C.	1,433	2,339	419	25	394	394
SUBTOTAL		3,749	6,119	1,097	85	1,011	1,011	
Route 666, NM	Mexican Springs	U.C.	711	1,161	208	see Tohatchi	208	208
	Naschitti	U.C.	1,539	2,512	450	81	370	370
	Newcomb	U.C.	651	1,063	190	13	178	178
	Sanostee	U.C.	2,081	3,397	609	105	504	504
	Sheep Springs	U.C.	660	1,077	193	13	180	180
	Tohatchi	U.C.	1,607	2,623	470	180	290	290
	Twin Lakes	U.C.	1,967	3,211	575	104	472	472
	Two Grey Hills	U.C.	883	1,441	258	61	198	198
SUBTOTAL		10,099	16,484	2,955	556	2,399	2,399	
Torreon, NM	Counselor	U.C.	1,365	2,228	399	0	399	399
	Ojo Encino [8]	R.G.	596	973	174	20	155	155
	Pueblo Pintado	U.C.	472	770	138	0	138	138
	Torreon [8]	R.G.	1,364	2,226	399	84	315	315
SUBTOTAL		3,797	6,198	1,111	104	1,007	1,007	
San Juan River, NM	Beclaibito	U.C.	388	633	114	0	114	57
	Cudei	U.C.	495	808	145	0	145	72
	Hogback	U.C.	740	1,208	216	0	216	108
	Nenahnezad	U.C.	1,253	2,045	367	0	367	183
	San Juan	U.C.	540	881	158	0	158	79
	Shiprock	U.C.	8,100	13,221	2,370	0	2,370	1,185
	Upper Fruitland	U.C.	2,288	3,735	669	0	669	335
SUBTOTAL [9]		13,804	22,531	4,038	4,680	0	0	
NAPI Industrial, NM [10]		U.C.	n/a	n/a	7,274	400	400	400
NEW MEXICO UPPER BASIN		U.C.	35,972	58,715	17,798	6,294	5,672	5,672
NEW MEXICO LOWER BASIN		L.C.	30,807	46,494	8,333	406	10,503	10,503
TOTAL NEW MEXICO			66,779	105,209	26,131	6,700	16,175	16,175
Window Rock, AZ	Fort Defiance	L.C.	6,187	10,099	1,810	974	836	836
	Saint Michaels	L.C.	5,580	9,108	1,632	see Ft. Dfnc.	1,632	1,632
TOTAL ARIZONA [11]		L.C.	11,767	19,206	3,442	974	2,469	2,469
PROJECT TOTAL			78,546	124,416	29,574	7,673	18,644	18,644

Notes: Rounding error may cause subtotals to be off by 1

- 1 U.C.=Upper Colorado Basin, L.C.=Lower Colorado Basin, R.G.=Rio Grande Basin
- 2 Growth for the City of Gallup is 1.82%. Growth for Navajo Nation is --- 2.48%
- 3 Demand is 160 gal/capita/day
- 4 Estimated sustainable groundwater production
- 5 Diversions = demand - groundwater use. Gallup limited to 7,500 ac-ft/yr
- 6 Depletions assume zero return flow and use of sustainable groundwater
- 7 City of Gallup plans to recharge aquifer and use groundwater for summer daily peaking
- 8 Point of use in Rio Grande Basin. Depletions counted towards New Mexico U.C. allocation
- 9 4680 Ac-ft/yr of diversion provided from the ALP Project. Assumes a 50% return flow
- 10 Div. and depl. limited to 700 Ac-ft/yr including 400 Ac-ft/yr for proposed french fry factory
- 11 Depletions counted towards Arizona L.C. allocation

Navajo-Gallup M&I Demands for Year 2020

17-Jan-01

Service Area	Chapter	Point of Use [1]	1990 Census Pop.	2020 Pop. [2]	2020 SJR Demand [3] (Ac-ft/yr)	2020 G.W. Production [4] (Ac-ft/yr)	2020 SJR Diversion [5] (Ac-ft/yr)	2020 SJR Depletion [6] (Ac-ft/yr)
City of Gallup, NM	City of Gallup [7]	L.C.	19,154	32,904	5,898	0	7,500	7,500
Central Area, NM	Burnham	U.C.	246	513	92	0	92	92
	Lake Valley	U.C.	436	909	163	34	129	129
	White Rock	U.C.	201	419	75	see Lk Vly	75	75
	White Horse Lake	U.C.	610	1,272	228	18	210	210
	SUBTOTAL		1,493	3,113	558	52	506	506
Crownpoint, NM	Becenti	U.C.	193	402	72	see Crwn Pt.	72	72
	Coyote Canyon	U.C.	1,234	2,573	461	47	414	414
	Crownpoint	U.C.	2,658	5,543	993	438	555	555
	Dalton Pass	U.C.	313	653	117	0	117	117
	Little Water	U.C.	638	1,330	238	see Crwn Pt.	238	238
	Standing Rock	U.C.	251	523	94	55	38	38
	SUBTOTAL		5,287	11,025	1,976	541	1,435	1,435
Gallup Area, NM	Bread Springs	L.C.	1,219	2,542	456	60	396	396
	Chichiltah	L.C.	1,555	3,243	581	see Brd spr.	581	581
	Church Rock	L.C.	1,780	3,712	665	90	575	575
	Iyanbito	L.C.	974	2,031	364	77	287	287
	Mariano Lake	L.C.	726	1,514	271	107	164	164
	Pinedale	L.C.	609	1,270	228	see Mrmo Lk	228	228
	Red Rock	L.C.	1,041	2,171	389	48	341	341
	SUBTOTAL		7,904	16,482	2,954	382	2,572	2,572
Huerfano, NM	Huerfano	U.C.	511	1,066	191	45	146	146
	Nageezi	U.C.	981	2,046	367	23	343	343
	SUBTOTAL		1,492	3,111	558	68	489	489
Rock Springs, NM	Manuelito	L.C.	631	1,316	236	23	213	213
	Rock Springs	L.C.	1,685	3,514	630	58	571	571
	Tsayatoh	L.C.	1,433	2,988	536	32	504	504
	SUBTOTAL		3,749	7,818	1,401	113	1,288	1,288
Route 666, NM	Mexican Springs	U.C.	711	1,483	266	see Tohatchi	266	266
	Naschitti	U.C.	1,539	3,209	575	79	496	496
	Newcomb	U.C.	651	1,358	243	12	231	231
	Sanostee	U.C.	2,081	4,340	778	121	657	657
	Sheep Springs	U.C.	660	1,376	247	14	233	233
	Tohatchi	U.C.	1,607	3,351	601	222	378	378
	Twin Lakes	U.C.	1,967	4,102	735	120	615	615
	Two Grey Hills	U.C.	883	1,841	330	66	264	264
	SUBTOTAL		10,099	21,060	3,775	635	3,139	3,139
Torreon, NM	Counselor	U.C.	1,365	2,846	510	0	510	510
	Ojo Encino [8]	R.G.	596	1,243	223	18	205	205
	Pueblo Pintado	U.C.	472	984	176	0	176	176
	Torreon [8]	R.G.	1,364	2,844	510	77	433	433
	SUBTOTAL		3,797	7,918	1,419	95	1,324	1,324
San Juan River, NM	Beclaibito	U.C.	388	809	145	0	145	73
	Cudei	U.C.	495	1,032	185	0	185	93
	Hogback	U.C.	740	1,543	277	0	277	138
	Nenahnezad	U.C.	1,253	2,613	468	0	468	234
	San Juan	U.C.	540	1,126	202	0	202	101
	Shiprock	U.C.	8,100	16,891	3,027	0	3,027	1,514
	Upper Fruitland	U.C.	2,288	4,771	855	0	855	428
	SUBTOTAL [9]		13,804	28,786	5,159	4,680	479	240
NAPI Industrial, NM [10]	U.C.	n/a	n/a	7,274	500	500	500	
NEW MEXICO UPPER BASIN		U.C.	35,972	75,013	20,719	6,571	7,874	7,634
NEW MEXICO LOWER BASIN		L.C.	30,807	57,205	10,253	496	11,360	11,360
TOTAL NEW MEXICO			66,779	132,218	30,972	7,067	19,234	18,994
Window Rock, AZ	Fort Defiance	L.C.	6,187	12,902	2,312	905	1,408	1,408
	Saint Michaels	L.C.	5,580	11,636	2,086	see Ft. Dfnc.	2,086	2,086
TOTAL ARIZONA [11]		L.C.	11,767	24,538	4,398	905	3,493	3,493
PROJECT TOTAL			78,546	156,756	35,370	7,972	22,727	22,487

Notes: Rounding error may cause subtotals to be off by 1

1 U.C.=Upper Colorado Basin, L.C.=Lower Colorado Basin, R.G.=Rio Grande Basin

2 Growth for the City of Gallup is 1.82%. Growth for Navajo Nation is ---- 2.48%

3 Demand is 160 gal/capita/day

4 Estimated sustainable groundwater production

5 Diversions = demand - groundwater use. Gallup limited to 7,500 ac-ft/yr

6 Depletions assume zero return flow and use of sustainable groundwater

7 City of Gallup plans to recharge aquifer and use groundwater for summer daily peaking

8 Point of use in Rio Grande Basin. Depletions counted towards New Mexico U.C. allocation

9 4680 Ac-ft/yr of diversion provided from the ALP Project. Assumes a 50% return flow

10 Div. and depl. limited to 700 Ac-ft/yr including 400 Ac-ft/yr for proposed french fry factory

11 Depletions counted towards Arizona L.C. allocation

Navajo-Gallup M&I Demands for Year 2030

17-Jan-01

Service Area	Chapter	Point of Use [1]	1990 Census Pop.	2030 Pop. [2]	2030 SJR Demand [3] (Ac-ft/yr)	2030 G.W. Production [4] (Ac-ft/yr)	2030 SJR Diversion [5] (Ac-ft/yr)	2030 SJR Depletion [6] (Ac-ft/yr)
City of Gallup, NM	City of Gallup [7]	L.C.	19,154	39,408	7,063	0	7,500	7,500
Central Area, NM	Burnham	U.C.	246	655	117	0	117	117
	Lake Valley	U.C.	436	1,162	208	40	168	168
	White Rock	U.C.	201	536	96	see Lk Vly	96	96
	White Horse Lake	U.C.	610	1,625	291	24	267	267
	SUBTOTAL		1,493	3,978	713	64	649	649
Crownpoint, NM	Becenti	U.C.	193	514	92	see Crwn Pt.	92	92
	Coyote Canyon	U.C.	1,234	3,288	589	54	535	535
	Crownpoint	U.C.	2,658	7,081	1,269	526	743	743
	Dalton Pass	U.C.	313	834	149	0	149	149
	Little Water	U.C.	638	1,700	305	see Crwn Pt.	305	305
	Standing Rock	U.C.	251	669	120	66	54	54
	SUBTOTAL		5,287	14,086	2,525	647	1,878	1,878
Gallup Area, NM	Bread Springs	L.C.	1,219	3,248	582	68	514	514
	Chichiltah	L.C.	1,555	4,143	743	see Brd spr.	743	743
	Church Rock	L.C.	1,780	4,742	850	107	743	743
	Iyanbito	L.C.	974	2,595	465	115	350	350
	Mariano Lake	L.C.	726	1,934	347	100	247	247
	Pinedale	L.C.	609	1,622	291	see Mmo Lk	291	291
	Red Rock	L.C.	1,041	2,773	497	55	442	442
	SUBTOTAL		7,904	21,058	3,774	444	3,330	3,330
Huerfano, NM	Huerfano	U.C.	511	1,361	244	38	206	206
	Nageezi	U.C.	981	2,614	468	19	449	449
	SUBTOTAL		1,492	3,975	712	57	655	655
Rock Springs, NM	Manuelito	L.C.	631	1,681	301	35	267	267
	Rock Springs	L.C.	1,685	4,489	805	68	737	737
	Tsayatoh	L.C.	1,433	3,818	684	39	645	645
	SUBTOTAL		3,749	9,988	1,790	141	1,649	1,649
Route 666, NM	Mexican Springs	U.C.	711	1,894	340	see Tohatchi	340	340
	Naschitti	U.C.	1,539	4,100	735	78	657	657
	Newcomb	U.C.	651	1,734	311	12	299	299
	Sanostee	U.C.	2,081	5,544	994	137	856	856
	Sheep Springs	U.C.	660	1,758	315	15	301	301
	Tohatchi	U.C.	1,607	4,281	767	265	503	503
	Twin Lakes	U.C.	1,967	5,240	939	137	802	802
	Two Grey Hills	U.C.	883	2,352	422	71	350	350
	SUBTOTAL		10,099	26,906	4,822	715	4,107	4,107
Torreon, NM	Counselor	U.C.	1,365	3,637	652	0	652	652
	Ojo Encino [8]	R.G.	596	1,588	285	17	268	268
	Pueblo Pintado	U.C.	472	1,257	225	0	225	225
	Torreón [8]	R.G.	1,364	3,634	651	69	582	582
	SUBTOTAL		3,797	10,116	1,813	86	1,727	1,727
San Juan River, NM	Beclaibito	U.C.	388	1,034	185	0	185	93
	Cudei	U.C.	495	1,319	236	0	236	118
	Hogback	U.C.	740	1,971	353	0	353	177
	Nenahnezad	U.C.	1,253	3,338	598	0	598	299
	San Juan	U.C.	540	1,439	258	0	258	129
	Shiprock	U.C.	8,100	21,580	3,868	0	3,868	1,934
	Upper Fruitland	U.C.	2,288	6,096	1,093	0	1,093	546
	SUBTOTAL [9]		13,804	36,776	6,592	4,680	1,912	956
NAPI Industrial, NM [10]		U.C.	n/a	n/a	7,274	600	600	600
NEW MEXICO UPPER BASIN		U.C.	35,972	95,836	24,451	6,849	11,528	10,572
NEW MEXICO LOWER BASIN		L.C.	30,807	70,454	12,628	585	12,479	12,479
TOTAL NEW MEXICO			66,779	166,290	37,079	7,434	24,007	23,052
Window Rock, AZ	Fort Defiance	L.C.	6,187	16,483	2,954	836	2,118	2,118
	Saint Michaels	L.C.	5,580	14,866	2,665	see Ft. Dfnc.	2,665	2,665
TOTAL ARIZONA [11]		L.C.	11,767	31,349	5,619	836	4,783	4,783
PROJECT TOTAL			78,546	197,639	42,698	8,270	28,790	27,834

Notes: Rounding error may cause subtotals to be off by 1

1 U.C.=Upper Colorado Basin, L.C.=Lower Colorado Basin, R.G.=Rio Grande Basin

2 Growth for the City of Gallup is 1.82%. Growth for Navajo Nation is --- 2.48%

3 Demand is 160 gal/capita/day

4 Estimated sustainable groundwater production

5 Diversions = demand - groundwater use. Gallup limited to 7,500 ac-ft/yr

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11 Depletions counted towards Arizona L.C. allocation

Navajo-Gallup M&I Demands for Year 2040

17-Jan-01

Service Area	Chapter	Point of Use [1]	1990 Census Pop.	2040 Pop. [2]	2040 SJR Demand [3] (Ac-ft/yr)	2040 G.W. Production [4] (Ac-ft/yr)	2040 SJR Diversion [5] (Ac-ft/yr)	2040 SJR Depletion [6] (Ac-ft/yr)
City of Gallup, NM	City of Gallup [7]	L.C.	19,154	47,197	8,459	1,439	7,500	7,500
Central Area, NM	Burnham	U.C.	246	837	150	0	150	150
	Lake Valley	U.C.	436	1,484	266	46	220	220
	White Rock	U.C.	201	684	123	see Lk Vly	123	123
	White Horse Lake	U.C.	610	2,076	372	31	341	341
	SUBTOTAL		1,493	5,082	911	77	834	834
Crownpoint, NM	Becenti	U.C.	193	657	118	see Crwn Pt.	118	118
	Coyote Canyon	U.C.	1,234	4,200	753	61	691	691
	Crownpoint	U.C.	2,658	9,047	1,622	614	1,008	1,008
	Dalton Pass	U.C.	313	1,065	191	0	191	191
	Little Water	U.C.	638	2,172	389	see Crwn Pt.	389	389
	Standing Rock	U.C.	251	854	153	77	76	76
	SUBTOTAL		5,287	17,996	3,225	752	2,473	2,473
Gallup Area, NM	Bread Springs	L.C.	1,219	4,149	744	77	667	667
	Chichilitah	L.C.	1,555	5,293	949	see Brd spr.	949	949
	Church Rock	L.C.	1,780	6,059	1,086	123	963	963
	Iyanbito	L.C.	974	3,315	594	153	441	441
	Mariano Lake	L.C.	726	2,471	443	92	351	351
	Pinedale	L.C.	609	2,073	372	see Mmo Lk	372	372
	Red Rock	L.C.	1,041	3,543	635	61	574	574
	SUBTOTAL		7,904	26,903	4,822	506	4,316	4,316
Huerfano, NM	Huerfano	U.C.	511	1,739	312	31	281	281
	Nageezi	U.C.	981	3,339	598	15	583	583
	SUBTOTAL		1,492	5,078	910	46	864	864
Rock Springs, NM	Manuelito	L.C.	631	2,148	385	46	339	339
	Rock Springs	L.C.	1,685	5,735	1,028	77	951	951
	Tsayatoh	L.C.	1,433	4,878	874	46	828	828
	SUBTOTAL		3,749	12,761	2,287	169	2,118	2,118
Route 666, NM	Mexican Springs	U.C.	711	2,420	434	see Tohatchi	434	434
	Naschitti	U.C.	1,539	5,238	939	77	862	862
	Newcomb	U.C.	651	2,216	397	12	385	385
	Sanostee	U.C.	2,081	7,083	1,270	153	1,116	1,116
	Sheep Springs	U.C.	660	2,246	403	15	387	387
	Tohatchi	U.C.	1,607	5,470	980	307	673	673
	Twin Lakes	U.C.	1,967	6,695	1,200	153	1,047	1,047
	Two Gray Hills	U.C.	883	3,005	539	77	462	462
	SUBTOTAL		10,099	34,374	6,161	795	5,366	5,366
	Torreon, NM	Counselor	U.C.	1,365	4,646	833	0	833
Ojo Encino [8]		R.G.	596	2,029	364	15	348	348
Pueblo Pintado		U.C.	472	1,607	288	0	288	288
Torreon [8]		R.G.	1,364	4,643	832	61	771	771
SUBTOTAL			3,797	12,924	2,316	77	2,240	2,240
San Juan River, NM	Beclaibito	U.C.	388	1,321	237	0	237	118
	Cudei	U.C.	495	1,685	302	0	302	151
	Hogback	U.C.	740	2,519	451	0	451	226
	Nenahnezad	U.C.	1,253	4,265	764	0	764	382
	San Juan	U.C.	540	1,838	329	0	329	165
	Shiprock	U.C.	8,100	27,570	4,942	0	4,942	2,471
	Upper Fruitland	U.C.	2,288	7,788	1,396	0	1,396	698
	SUBTOTAL [9]		13,804	46,985	8,421	4,680	3,741	1,871
NAPI Industrial, NM [10]	U.C.	n/a	n/a	7,274	700	700	700	
NEW MEXICO UPPER BASIN		U.C.	35,972	122,439	29,219	7,127	16,219	14,348
NEW MEXICO LOWER BASIN		L.C.	30,807	86,861	15,568	2,114	13,934	13,934
TOTAL NEW MEXICO			66,779	209,300	44,788	9,241	30,153	28,282
Window Rock, AZ	Fort Defiance	L.C.	6,187	21,059	3,774	767	3,007	3,007
	Saint Michaels	L.C.	5,580	18,993	3,404	see Ft. Dfnc.	3,404	3,404
TOTAL ARIZONA [11]		L.C.	11,767	40,052	7,179	767	6,411	6,411
PROJECT TOTAL			78,546	249,352	51,967	10,008	36,564	34,693

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- 4 Estimated sustainable groundwater production
- 5 Diversions = demand - groundwater use. Gallup limited to 7,500 ac-ft/yr
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- 8 Point of use in Rio Grande Basin. Depletions counted towards New Mexico U.C. allocation
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- 11 Depletions counted towards Arizona L.C. allocation

Navajo-Gallup M&I Demands for Year 2050

17-Jan-01

Service Area	Chapter	Point of Use [1]	1990 Census Pop.	2050 Pop. [2]	2050 SJR Demand [3] (Ac-ft/yr)	2050 G.W. Production [4] (Ac-ft/yr)	2050 SJR Diversion [5] (Ac-ft/yr)	2050 SJR Depletion [6] (Ac-ft/yr)
City of Gallup, NM	City of Gallup [7]	L.C.	19,154	56,526	10,131	3,947	7,500	7,500
Central Area, NM	Burnham	U.C.	246	1,070	192	0	192	192
	Lake Valley	U.C.	436	1,896	340	46	294	294
	White Rock	U.C.	201	874	157	see Lk Vly	157	157
	White Horse Lake	U.C.	610	2,653	475	31	445	445
	SUBTOTAL		1,493	6,492	1,164	77	1,087	1,087
Crownpoint, NM	Becenti	U.C.	193	839	150	see Crwn Pt.	150	150
	Coyote Canyon	U.C.	1,234	5,366	962	61	900	900
	Crownpoint	U.C.	2,658	11,559	2,072	614	1,458	1,458
	Dalton Pass	U.C.	313	1,361	244	0	244	244
	Little Water	U.C.	638	2,774	497	see Crwn Pt.	497	497
	Standing Rock	U.C.	251	1,091	196	77	119	119
SUBTOTAL		5,287	22,991	4,121	752	3,369	3,369	
Gallup Area, NM	Bread Springs	L.C.	1,219	5,301	950	77	873	873
	Chichiltah	L.C.	1,555	6,762	1,212	see Brd spr.	1,212	1,212
	Church Rock	L.C.	1,780	7,740	1,387	123	1,265	1,265
	Iyanbito	L.C.	974	4,236	759	153	606	606
	Mariano Lake	L.C.	726	3,157	566	92	474	474
	Pinedale	L.C.	609	2,648	475	see Mmo Lk	475	475
	Red Rock	L.C.	1,041	4,527	811	61	750	750
SUBTOTAL		7,904	34,371	6,161	506	5,654	5,654	
Huerfano, NM	Huerfano	U.C.	511	2,222	398	31	368	368
	Nageezi	U.C.	981	4,266	765	15	749	749
	SUBTOTAL		1,492	6,488	1,163	46	1,117	1,117
Rock Springs, NM	Manuelito	L.C.	631	2,744	492	46	446	446
	Rock Springs	L.C.	1,685	7,327	1,313	77	1,237	1,237
	Tsayatoh	L.C.	1,433	6,232	1,117	46	1,071	1,071
	SUBTOTAL		3,749	16,303	2,922	169	2,753	2,753
Route 666, NM	Mexican Springs	U.C.	711	3,092	554	see Tohatchi	554	554
	Naschitti	U.C.	1,539	6,692	1,200	77	1,123	1,123
	Newcomb	U.C.	651	2,831	507	12	495	495
	Sanostee	U.C.	2,081	9,049	1,622	153	1,469	1,469
	Sheep Springs	U.C.	660	2,870	514	15	499	499
	Tohatchi	U.C.	1,607	6,988	1,253	307	946	946
	Twin Lakes	U.C.	1,967	8,554	1,533	153	1,380	1,380
	Two Grey Hills	U.C.	883	3,840	688	77	611	611
SUBTOTAL		10,099	43,916	7,871	795	7,076	7,076	
Torreon, NM	Counselor	U.C.	1,365	5,936	1,064	0	1,064	1,064
	Ojo Encino [8]	R.G.	596	2,592	465	15	449	449
	Pueblo Pintado	U.C.	472	2,053	368	0	368	368
	Torreon [8]	R.G.	1,364	5,931	1,063	61	1,002	1,002
	SUBTOTAL		3,797	16,512	2,959	77	2,883	2,883
San Juan River, NM	Beclaibito	U.C.	388	1,687	302	0	302	151
	Cudei	U.C.	495	2,153	386	0	386	193
	Hogback	U.C.	740	3,218	577	0	577	288
	Nenahnezad	U.C.	1,253	5,449	977	0	977	488
	San Juan	U.C.	540	2,348	421	0	421	210
	Shiprock	U.C.	8,100	35,223	6,313	0	6,313	3,157
	Upper Fruitland	U.C.	2,288	9,950	1,783	0	1,783	892
	SUBTOTAL [9]		13,804	60,028	10,759	4,680	6,079	3,040
NAPI Industrial, NM [10]		U.C.	n/a	n/a	7,274	700	700	700
NEW MEXICO UPPER BASIN		U.C.	35,972	156,427	35,311	7,127	22,311	19,271
NEW MEXICO LOWER BASIN		L.C.	30,807	107,200	19,214	4,622	15,907	15,907
TOTAL NEW MEXICO			66,779	263,626	54,525	11,749	38,218	35,178
Window Rock, AZ	Fort Defiance	L.C.	6,187	26,905	4,822	767	4,055	4,055
	Saint Michaels	L.C.	5,580	24,265	4,349	see Ft. Dfnc.	4,349	4,349
TOTAL ARIZONA [11]		L.C.	11,767	51,170	9,171	767	8,404	8,404
PROJECT TOTAL			78,546	314,796	63,697	12,516	46,622	43,583

Notes: Rounding error may cause subtotals to be off by 1

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